

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

D806535811

FACILITY: Dart Container Corporation of Michigan		SRN / ID: D8065
LOCATION: 432 Hogsback Rd, MASON		DISTRICT: Lansing
CITY: MASON		COUNTY: INGHAM
CONTACT: Donald Wiltse , Regulatory Engineer		ACTIVITY DATE: 08/03/2016
STAFF: Nathaniel Hude	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled, announced inspection as part of a FCE covering all sections of the ROP (1-3) and applicable regulations.		
RESOLVED COMPLAINTS:		

Inspection Report

D8065- Dart Container
432 Hogsback Road
Mason, MI 48854

Inspection Date:

8/3/16

Facility Contacts:

Donald Wiltse, Regulatory Engineer, 517-244-2452, Donald.wiltse@dart.biz
Dennis Archer, Plant Services Manager, 517-244-3685, dennis.archer@dart.biz

MDEQ AQD Personnel:

Nathan Hude – huden@michigan.gov, 517-284-6779

Facility Description:

Dart is a Major Source for VOC's and a minor source of HAPs. There are 3 sections to MI-ROP-D8065-2014a. Section 1 is specific to the "Cup Plant", section 2 is specific to "Machine Manufacturing", and Section 3 is specific to "Facility Equipment and Non-Manufacturing" equipment such as emergency generators.

It should be noted that during this inspection an extensive review of records was completed while on site, but due to the complexity of the excel spreadsheets used for recordkeeping, copies were not gathered by myself to attach to this report. Verification of limits and recordkeeping are addressed for each individual unit in this report as appropriate.

The Facility manufactures foam containers from expandable polystyrene (EPS) beads impregnated with pentane. The containers are sold to numerous distributors under name brands as requested such as Great Value, Family Dollar, etc. There are a total of 8 buildings for the site; Building 1 is the Cup Plant where all manufacturing takes place, Building 2 holds office space for Graphics, Travel, Procurement, etc., Building 3 is a employee recycling center drop off center, Building 4 houses Machinery Manufacturing (Dart builds and fabricates all of its machinery), Building 5 is the old storage building now used for machine design and R&D with truck maintenance garage, Building 6 is the new corporate office with the HR and marketing office, Building 7 is the new warehouse, and Building 8 is for facilities and grounds maintenance.

As stated, Dart builds, fabricates, and repairs all of its machinery which is commonly referred to "Machine Manufacturing" or "MM". MM utilizes numerous exempt equipment such as C&C machines and mills for producing cup machines and future thermal forming machines. The Dart workforce is extremely talented in this specialty. Machines in this location are often times shipped to the other plants. Also of note is that Dart formulates and produces any ink used for cup labeling at a location in Holt, MI and all of the expandable polystyrene (eps) beads impregnated with pentane at its locations in Pennsylvania and Kentucky which is shipped to manufacturing plants in 2000lb bags. Dart has certificates of safety from the FDA regarding the interaction of food and beverage with the ink.

In 2012, Dart Container purchased the Solo Cup Company. Although the manufacturing plants remain where they were at the time of the acquisition, the Solo corporate headquarters were consolidated with the Dart headquarters in Mason. This consolidation required an increase in office space which was recently completed along with an additional storage and shipment building of approx. 475,000 square feet. Currently Dart Container employs approx. 1800 individuals at the Mason plant of which around 200 are contract employees for IT upgrades. In total, Dart Container has

23 manufacturing facilities in 11 states and has 10 international plants. (if this paragraph is highlighted once printed, it is a MACES issue and not intended to be and should be ignored)

The primary VOC pollutant is pentane, CH Pentane is not identified as a HAP according to the EPA, yet is identified as a Toxic according to state of Michigan AQD toxic rules with an Initial Threshold Screening Level (ITSL) of 17,700 $\mu\text{g}/\text{m}^3$ over an 8 hour average which is the equivalent of 17.7ppm. A SDS found online state the odor as "Pleasant, Gasoline-like" and an odor threshold of 2.2 ppm.

The facility is located at the intersection of Howell Road and Cedar Street in Mason. To the east of the facilities is US127 with a residential area, to the west is residential, to the south is commercial and to the north is a commercial and residential mix.

Dart Container production operates 24/7; the engineering and administrative sections operate generally 8am-5pm Monday –Friday.

For inspection purposes and entry into the cup plant production area, eye protection, steel toed boots, hearing protection and hair nets (provided) are required; no photographs are allowed in the cup plant. Within the warehouse a reflective high visibility vest is required.

Process Explanation: expandable polystyrene (eps) beads (beads look like little glass beads) impregnated with pentane are dumped from large bags and augured into controlled storage bins (this is the first stage of control), the beads are then sifted for size with larger beads separated and recycled; the beads then go into a pre-heater and partially expand followed by a cyclone for water drop-out where a pentane CEM is located (this is the last stage of pentane control where all pentane is vented to the onsite boilers, each boiler has pitot tubes installed to determine scfm); after the pre-heater the partially expanded beads are sent to the 136 cup mold machines (with 6-12 cavities each) which then use boiler steam heat to completely expand and mold the beads into cups (this is the first stage of EU-CUPSTORAGE); cups are then sent to printing area if required followed by packaging; once packaged the cups are transported throughout to the appropriate storage area. It is estimated that once formed into cups, a majority of the remaining pentane is emitted within the first 30 days.

Applicable Regulations:

MI-ROP-D8065-2014a
40CFR63 Subpart N

Non-Applicable Regulations:

See ROP "non applicable requirements" after each section

Voided Permits, a detailed description is in the summary:

NA

Identified Issues or Concerns from Inspection:

ROP Updates Required:

1. Rain caps on EU-BOILER5-S1 and EU-BOILER8-S1 are considered an obstruction to dispersion and were removed 8/12/16.
2. Die Oven located in Cup Plant needs to be added to FG-RULE290-S1.
3. Engine information for EU-FIREPUMP2-S3 needs to be updated in ROP per June 21, 2016 notice.
4. FG-BOILERS-S1 emission limit refers to SC VI5 as the Monitoring/Testing Method; this is incorrect and needs to be changed to SC III.1 which limits fuel sulfur content to 1.5% by weight.

Previous Inspections (within 5 years):

8/13/14, Brian Culham, FCE, no issues noted
1/17/13, Brian Culham, FCE, no issues noted

Previous Violations:

none

Violations Found During this Inspection:

none

Recent Complaints (within 2 years):

none

MAERS Reporting

Facility is a Category 1 site in MAERS.

NAICS Code:

MAERS Emission Unit List (identified by building location in ROP order)**Building 1 Emission Units:**

- EU-RECYCEXTRUD Recycle extruder: includes extruder used in the recycle center to recycle foam polystyrene, both pre and post-consumer; since the rest of the process consists of cleaning and sorting with no VOC use, it is exempt per 336.1281(e) and 336.212(2). Installed 7/1/1990
- EU-CUP-S1 Cup manufacturing process: Dart produces foam containers made from expandable polystyrene (eps) beads impregnated with pentane using a steam chest molding process. Installed 4/1/1960
- EU-CUPSTORAGE-S1 Pentane emissions from the storage of cups. The actual installation date of the process is 04/01/1960, which coincides with the original cup manufacturing process. Emissions were quantified by testing pentane content in cups post production and then again 30 days later. In 2014 AQD determined that the emissions should be reported to MAERs starting in 2013. Installed 1/1/2013
- EU-CUPLIGHTS-S1 (EU-RICE-S1) Emergency generator for Cup Plant lights. Installed 4/1/1980
- EU-COLDCLEAN-S1 All Cold Cleaners covered by Section 1 of ROP. Installed 2/7/1992
- EU-UVPRINT-S1 (FG-RULE290-S1) UV ink printing of foam containers. Includes ink and Isopropyl alcohol clean up. Installed 4/1/1960
- EU-BOILER5-S1 (FG-BOILERRS-S1) Steam Boiler: Boiler #5 is a 600 hp steam boiler which is used to produce steam for the cup mfg. process. The boiler's primary fuel is natural gas with No.2 fuel oil as backup. Installed 1/1/1970
- EU-BOILER7-S1 (FG-BOILERRS-S1) Steam Boiler: 700 hp boiler used to produce steam for cup mfg process. Primary fuel is natural gas with #2 fuel oil as backup. Installed 1/1/1970
- EU-BOILER8-S1 (FG-BOILERRS-S1) Steam Boiler: 800 hp boiler used for steam production for container mfg process. Primary fuel is natural gas; no backup fuel. Installed 1/1/1970

Building 4 Emission Units:

- EU-CHROMEPLATE (EU-CHROMEPLATING-S2) Chrome Plating Process: Dart's Machine Mfg Div. chrome plates molds using a hard chrome plating process. Under NESHAP standards, Dart's process is considered an existing small hard chrome plating operation. Dart currently has a scrubber installed. Installed 1/1/1989
- EU-PAINTBOOTH-S2 Machine parts coating line booth. Installed 7/1/1997
- EU-LASERCUT-S2 Laser cutter used to cut mild, stainless, and galvanized steel, as well as aluminum in the Machinery Manufacturing division. Installed 3/1/2007
- EU-MMCOLDCLNR-S2 All Cold Cleaners in Section 2 of ROP. Installed 9/5/2006
- FG-RULE290-S2

Building 5 Emission Units:

- EU-DIEOVEN-S3 Electric fired furnace to clean die heads for R&D extrusion operations. Vented to in-plant environment through fabric filter. Installed 3/1/2012
- EU-UVPRINTB5-S3 UV printing, R&D, and cleanup operations in Bldg 5. Installed ?
- EU-PPFOAM P14 Foam Extrusion System. Installed 1/1/2015- Dual Tandem Foam Extrusion System, which has been internally identified as Lab Line 3, has been placed into temporary service to produce the substrate for making a series of new polypropylene hot beverage containers, codenamed 'P14'.

Emergency Generators, various buildings:

- EU-CORPGEN-S3 Emergency Generator for Building 2 (formerly Bldg 3). Installed 4/1/2009
- EU-B2GEN, Building #2 (formerly 2B) emergency generator. Installed 11/25/2015
- EU-B5GEN Building 5 emergency generator. Installed 9/1/2014
- EU-B6GEN-S3 Emergency Generator for Building 6. Installed 6/1/2014
- EU-B7GEN-S3 Emergency Generator for Bldg 7. Installed 12/6/2013
- EU-FIREPUMP2-S3 Emergency generator engine for emergency fire pump system. Installed 4/1/1988
- EU-FIREPUMP3-S3 Emergency fire pump engine. Installed 4/1/2014

Inspection Summary

I arrived at Dart Container around 8:20 am for a scheduled, announced, initial contact (as new inspector), full compliance evaluation inspection. It was sunny skies with 5-10mph winds out of the south west; upon entering the parking lot and the building, I did not detect any odors or see any visible emissions.

I entered through the front entrance of building 1 (Cup Plant) where I signed in and was shortly thereafter met by Don. Due to the size of the facility and the permit, I had coordinated the inspection with Don on the Friday before. Don provided me with a badge and escorted me to a conference room where many representatives of the company were waiting; this included Jo Anna Stenzel the Environmental Manager, Ken Turner plant manager, John Alfano and Jason Bristow facilities engineers. We all introduced ourselves and discussed the purpose of my visit. I provided Don with a copy of our Inspection brochure and provided everyone with a copy of my business card.

After our introductions, Don, Dennis and I went to a smaller conference room to begin the inspection. A majority of the inspection was completed in this room reviewing records as required by the 3 sections of the ROP from the beginning to end.

Due to the size of the permit, each general and special condition will not have written remarks in this report though was discussed and reviewed on site. Each emission unit was discussed and physically inspected as appropriate. In regards to records and emission reporting, a majority of all Dart equipment is reported to MAERS and the MAERS report was used as a comparative tool when reviewing the pound per hour, 12 month rolling, and annual emissions as required to be recorded by Dart. All of the emission factors used were found to be appropriate as per the appendices of the ROP and all applied a DE of 95% where appropriate.

Building 1 Emission Units:

EU-RECYCLEEXTRUDER-S1, Compliance

- Emission limits were reviewed, the maximum pounds per day was 5 lbs with a limit of 18.42 pounds.
- Material limits reviewed, maximum polystyrene waste to be processed per day, month, and year were well under permitted limits.
- Process/Operational restrictions require use of a "Pentane Control System" which was physically observed. Testing completed on the system in 2013 found a 98% DE.
- Design/Equipment Parameters, na.
- Testing, no requirements (combined with other EU's for capture and DE)
- Monitoring and Recordkeeping, all conditions were being met.
- Reporting, all conditions were being met with the last required report received March 15, 2016.
- Stack/Vent Restrictions, na.
- Other Requirements- na.

EU-CUP-S1, Compliance

- Emission limits were reviewed, the maximum pounds per hour was 47 lbs with a limit of 75.33 pounds.
- Material limits reviewed, maximum pentane by weight is 6.5%, all EPS beads and recycled content uses the value of 6.5% for emission calculations which is an overestimate due to the recycled content having a much less pentane content due to constant off-gassing.
- Process/Operational restrictions require all waste EPS beads to be captured and recycled as appropriate; this waste is included with recycling.
- Design/Equipment Parameters requires sufficient boiler capacity for DE of pentane and the requirement to be in use when manufacturing is taking place; both of these requirements are being met.
- Testing, the pentane content of material as applied and received shall be tested or a SDS must provide formulation for proof of material limits; stack testing shall be completed once every 5 years, the last test was completed and passed on 1/23/13.
- Monitoring and Recordkeeping, all conditions were being met.
- Reporting, all conditions were being met with the last required report received March 15, 2016.
- Stack/Vent Restrictions are for the boilers as control devices requiring a diameter and height of certain characteristics that vent unobstructed vertically upwards. These requirements were being met with the exception of Boiler 5 and 8 both having rain caps. The caps have been on since installation per Dennis, I did not cite this violation due to the UAR's cited, yet requested proof of removal of caps to be complete NLT August 12, 2016.
- Other Requirements- na.

EU-CUPSTORAGE-S1, Compliance

*Note: once a cup is produced, all emission from off-gassing are calculated via this EU.

- Emission limits were reviewed, the average tons per year was 120 tons with a limit of 230 tons. The computation of the emissions is using an emission factor of 0.018 lbs VOC/ lbs of cups produced; or as identified in the original PTI 349-06A 1.8lbs VOC / 100 lbs cups produced.
- Material limits, na.
- Process/Operational restrictions, na.
- Design/Equipment Parameters, na.
- Testing, na.

- Monitoring and Recordkeeping, VOC emission rate shall be calculated monthly and was up to date.
- Reporting, all conditions were being met with the last required report received March 15, 2016.
- Stack/Vent Restriction, na.
- Other Requirements- na.

EU-RICE-S1 (EU-CUPLIGHTS-S1), Compliance

*Note: this engine is very small, yet must comply with 40CFR63 Z4. It is 18 HP or 0.0458 MMBtu/hr and is natural gas fired. The purpose is to provide emergency power to lighting in the plant (not to plant equipment).

- Emission limits, na.
- Material limits, na.
- Process/Operational restrictions require the following: inspection of belts and hoses along with oil change every 500 hrs or annually; and inspect air cleaner every 1000 hrs or annually. Records showed all was completed on 3/17/16. We also discussed regulation vacatur of paragraphs found in the ROP for this EU.
- Design/Equipment Parameters, na.
- Testing, na.
- Monitoring and Recordkeeping, all conditions were being met.
- Reporting, all conditions were being met with the last required report received March 15, 2016.
- Stack/Vent Restriction, na.
- Other Requirements- na.

FG-COLDCLEANERS-S1 (EU-CUPCOLDCLNRS-S1), Compliance

*Note: within building 1 there are 5 cold cleaners. The Model Shop uses Renegade as a solution with 0 VOC; Machine Design uses AK MPC Solution which is 0 VOC; the Cup Plant has 3 cold cleaners with the following descriptions that each use the following solutions: Immersion cleaner using Simple Green which is 0.50 lbs/gal VOC, Mold Cleaner using Hosty 99 which is 0 VOC, and Print Deck Maintenance which uses Mirachem which is 0.62 lbs/gal VOC. A SDS or MSDS was provided for each solution and will be attached to the hard copy of this report.

- Emission limits, na.
- Material limits, solution cannot contain > 5% halogenated compounds; of the MSDS's or SDS's provided, none of the solutions contained the halogenated compounds identified.
- Process/Operational restrictions require the following: draining of parts for no less than 15 seconds and to perform maintenance as per manufacturer. I did not observe operation or confirm maintenance practices.
- Design/Equipment Parameters, all solvent is less than 0.3 psia Reid Vapor pressure thus no special covers or control is required. Covers are available as required; emissions are released to general in plant environment, and are equipped with a device for draining.
- Testing, na.
- Monitoring and Recordkeeping, all conditions were being met.
- Reporting, in the most recent MAERS report, the "Did Not Operate This Year" column was selected for RG-COLDCLEAN. Don, Dennis and I discussed that due to some of the solvents being high in VOC content (none in Building 1), this is incorrect and all are in need of being reported.
- Stack/Vent Restriction, na.
- Other Requirements- na.

FG-RULE290-S1 (EU-UVPRINT&CLEAN-S1), Compliance

*Note: there is a Dieoven located in the Cup Plant that is required to be added to this list, this device is very similar to the oven identified as EU-DIEOVEN-S3 under FG-RULE290-S3 in section 3 of the permit and is used for the same purposes. Due to the estimated usage, I do not intend to cite the exclusion of this device from the ROP as a violation.

- Emission limits, The SDS's provided did not identify any HAP's, VOC's, or Toxic's with the information listed though each had a column in the ingredient list identified as "Proprietary" with a range of 7-18%. A request was made via email to provide proof of VOC, HAP and IRSL ITSL information on 8/8/16. Don provided me with a document stating that ASTM method D5403-93 Test Method A was performed and identified the VOC content as <1%. According to the 2015 MAERS report received, ink accounted for a usage of 19.21 tons with an estimated VOC content of 1% and the clean-up accounted for 3.25 tons of Isopropyl alcohol (aka 2-Propanol, CAS 67-63-0) at 100% VOC.
- Material limits, na.
- Process/Operational restrictions require the following: na.
- Design/Equipment Parameters, na.
- Testing, na.
- Monitoring and Recordkeeping, records are being kept on usage.
- Reporting, all conditions were being met.
- Stack/Vent Restriction, na.
- Other Requirements- na.

FG-BOILERS-S1 (EU-BOILER5-S1, EU-BOILER7-S1, EU-BOILER8-S1), Compliance

*Note: These boilers are used for destruction of Pentane from the operations leading up to but excluding cup molding/formation.

EU-BOILER5-S1 and EU-BOILER8-S1 both have rain caps on their stacks. Due to numerous inspections in the past without observing and citing Dart for the obstruction, I requested the caps to be removed no later than 8/12/16 to prevent a written violation.

The emission limit refers to SC VI5 as the Monitoring/Testing Method; this is incorrect and needs to be changed to SC III.1.

-Emission limits are in reference to sulfur content of fuel. The fuel is provided by contract and guaranteed to be less than 1.5% sulfur as required by SC III.1.

-Material limits, na.

-Process/Operational restrictions, the fuel is provided by contract with Corrigan Oil and guaranteed to be less than 1.5% sulfur.

-Design/Equipment Parameters, na.

-Testing, na.

-Monitoring and Recordkeeping, a stack temperature recording device is installed and records review found the average temperature range to be 340°F-347°F with the requirement of 300°F or greater. Fuel sulfur content is being met per contract with Corrigan Oil.

-Reporting, all conditions were being met with the last required report received March 15, 2016.

-Stack/Vent Restriction, EU-BOILER5-S1 and EU-BOILER8-S1 both have rain caps on their stacks and thus do not meet the requirement of "unobstructed". These caps will be removed NLT 8/12/16. Otherwise height and dimensions are being met.

-Other Requirements- 40CFR63 JJJJJJ (6J); EU-BOILER5-S1 and EU-BOILER7-S1 are natural gas fired with #2 fuel back-up, without O2 trim at a minor (area) source of HAPs; EU-BOILER8-S1 is exempt per 63.11195(e) as a natural gas fired boiler. The requirements for the applicable boilers are an initial tune-up and energy assessment which were completed for all three boilers on 9/10/15 and submitted to EPA via CEDRI.

During the MAERS review, I noticed that EU-BOILER5-S1 consumed 6350 gallons of #2 fuel oil and EU-BOILER7-S1 consumed 1640 gallons of #2 fuel oil; the usage rate concerned me as to if these boilers would now be considered "Liquid fueled" rather than "Gas fueled". Don and Dennis informed me that the large amount of diesel fuel consumed was competed to empty the tank so that maintenance on the tank could be performed. I performed the calculations to determine usage by Btu and found the following:

EU-BOILER5-S1 consumed 3.978 MMcf of NG, at 82.6 CF/gallon is 48,159.8 gallons. With 82,644 Btu's/gallon this equates to 3,980,119,031 Btu's. For Diesel fuel, the boiler consumed 6,350 gallons, at 139,000 Btu's/gallon this equates to 882,650,000 Btu's. Thus EU-BOILER5-S1 Btu by fuel is as follows: 18.2% via Diesel and 81.8% via NG.

EU-BOILER7-S1 consumed 76.901 MMcf of NG, at 82.6 CF/gallon is 931,004 gallons. With 82,644 Btu's/gallon this equates to 76,941,894,576 Btu's. For Diesel fuel, the boiler consumed 1,640 gallons, at 139,000 Btu's/gallon this equates to 227,960,000 Btu's. Thus EU-BOILER7-S1 Btu by fuel is as follows: 0.3% via Diesel and 99.7% via NG.

Based on these percentages, pursuit and research to the requirements of a "Liquid fueled" boiler will not be done. The determination of % NG vs % diesel was only calculated to show how much fuel was used to ensure the units would not be classified as a "liquid fuel" boiler; the percentage is not dictated in the boiler MACT, but I believe it is safe to say these boilers can remain classified as NG boilers based on a maximum usage of 18.2 % diesel.

Building 4 Emission Units:

EU-CHROMEPLATING-S2

*Note: This emission unit uses the scrubber as control; 40CFR63 N allows for the use of a surfactant or scrubber to comply.

-Emission limits, are required to be met via stack testing; the most recent test was conducted 6/25/13, the scrubber DP was 3.3" WC.

-Material limits, na.

-Process/Operational restrictions are being met.

-Design/Equipment Parameters, na.

-Testing, required every 5 years and due in 2018.

-Monitoring and Recordkeeping, all conditions were being met.

-Reporting, all conditions were being met.

-Stack/Vent Restriction, requires the chrome stack to be 16" x 45' and the strip tank stack to be 6" x 34'. The building itself is approx. 40 ft high and it is safe to assume these conditions are being met; confirmation of stack diameter was done.

-Other Requirements, an update O&M Plan was completed and provided by the company in May 2016. The plan included all of the requirements identified in this section of the ROP.

-EU-PAINTBOOTH-S2

*Note: This paint booth is non-production and is used for machine manufacturing or maintenance.

-Emission limits, all limits were being met according to records kept with the VOC lbs/hr at 0.91 and a limit of 5.2, lbs/month at 135.7 with a limit of 2000, and a well under tpy emission.

-Material limits, na.

-Process/Operational restrictions, exhaust filters were installed as required during inspection.

-Design/Equipment Parameters, na.

-Testing, method 24 will be used when applicable. All the paint used and entered into the facilities spreadsheet was very detailed and I saw no need for sampling at this point.

-Monitoring and Recordkeeping, all records are being kept and are available as required.

-Reporting, all reporting is being performed as required.

-Stack/Vent Restriction, stack restrictions were being met and verified visually.

-Other Requirements, na.

-EU-LASERCUT-S2

*Note: this device doesn't have a stack and emissions are within the in plant general environment, though it is located next to a wall vent with fan that is on the east side of building 4.

-Emission limits, PM limits are completed using month visible emission observations.

-Material limits, na.

-Process/Operational restrictions,

-Design/Equipment Parameters, na.

-Testing, na.

-Monitoring and Recordkeeping, month visible emission observations with written results of each observation are to be kept for 5 years. These were unavailable during the inspection due to the individual in charge of the documents not being onsite, yet an emailed copy was provided on 8/15/16 that satisfies the requirement.

-Reporting, generic/standard ROP paragraphs are in this section, emissions for this device are not reported.

-Stack/Vent Restriction, na.

-Other Requirements, na.

-FG-COLD CLEANERS-S2 (EU-MMCOLDCLNR-S2)

*Note: These are cold cleaners that are located in machine manufacturing.

-Emission limits, na.

-Material limits, solution cannot contain > 5% halogenated compounds; of the MSDS's or SDS's provided, none of the solutions contained the halogenated compounds identified.

-Process/Operational restrictions require the following: draining of parts for no less than 15 seconds and to perform maintenance as per manufacturer. I did not observe operation or confirm maintenance practices.

-Design/Equipment Parameters, all solvent is less than 0.3 psia Reid Vapor pressure thus no special covers or control is required. Covers are available as required; emissions are released to general in plant environment, and are equipped with a device for draining.

-Testing, na.

-Monitoring and Recordkeeping, all conditions were being met.

-Reporting, in the most recent MAERS report, the "Did Not Operate This Year" column was selected for RG-COLDCLEAN. Don, Dennis and I discussed that due to some of the solvents being high in VOC content (none in Building 1), this is incorrect and all are in need of being reported.

-Stack/Vent Restriction, na.

-Other Requirements- na.

-FG-RULE290-S2

*Note: No emission units are listed in the ROP or claimed by Dart for this FG.

-Emission limits, na.

-Material limits, na.

-Process/Operational restrictions, na.

-Design/Equipment Parameters, na.

-Testing, na.

-Monitoring and Recordkeeping, na.

-Reporting, na.

-Stack/Vent Restriction, na.

-Other Requirements, na.

Building 5 Emission Units:

-Truck Maintenance. Within the building on the north west side, there is a truck/semi maintenance area. We walked the area and I observed one of the parts washers already previously discussed. All oil is recycled and otherwise there were no emission units in this area.

-EU-DIEOVEN-S3 (FG-RULE290-S3)

*Note: This oven is quite small.

-Emission limits, the reported emissions are actual weights of burn off being that they consider all of the burned off weight to be a toxic or pollutant; this resulted in the emission of 1.78 lbs using mass balance for 2015.

-Material limits, na.

-Process/Operational restrictions, na.

-Design/Equipment Parameters, na.

-Testing, na.

-Monitoring and Recordkeeping, records are maintained and reported as required.

-Reporting, is being completed as required.

-Stack/Vent Restriction, na.

-Other Requirements, na.

-EU-UVPRINTB5-S3 (FG-RULE290-S3)

*Note: This line is used for product print testing prior for customer review prior to production.

-Emission limits, The SDS's provided did not identify any HAP's, VOC's, or Toxic's with the information listed though each had a column in the ingredient list identified as "Proprietary" with a range of 7-18%. A request was made via email to provide proof of VOC, HAP and IRSL ITSL information on 8/8/16. Don provided me with a document stating that ASTM method D5403-93 Test Method A was performed and identified the VOC content as <1%.

According to the 2015 MAERS report received, ink accounted for a usage of 0.111 tons with an estimated VOC content of 1% and the clean-up accounted for 0.36 tons of Isopropyl alcohol (aka 2-Propanol, CAS 67-63-0) at 100% VOC.

-Material limits, na.

-Process/Operational restrictions require the following: na.

-Design/Equipment Parameters, na.

-Testing, na.

-Monitoring and Recordkeeping, records are being kept on usage.

-Reporting, all conditions were being met.

-Stack/Vent Restriction, na.

-Other Requirements- na.

-EU-PPFOAM P14

*Note: This line was identified as exempt using Rule 290 per email traffic and supplemental information provided July 30, 2015.

-Emission limits, the reported emissions are using the VOC emission factors of 0.0186% VOC per 100 lbs of polystyrene extruded.

-Material limits, na.

-Process/Operational restrictions, na.

-Design/Equipment Parameters, na.

-Testing, na.

-Monitoring and Recordkeeping, records are maintained and reported as required.

-Reporting, is being completed as required.

-Stack/Vent Restriction, na.

-Other Requirements, na.

-Emergency Generators (EU-B2GEN, EU-B5GEN, EU-FIREPUMP2-S3, EU-FIREPUMP3-S3, EU-B6GEN-S3, EU-B7GEN-S3)

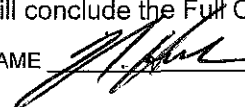
These generators were found to be compliant with the applicable requirements per the permit. All of them are maintained by the manufacturers and maintenance check data was provided upon request.

Overall, the facility appears to be willing to comply with the requirements of its permit and the applicable regulations. The facility is dedicated to encouraging reduction in waste and for all employees to recycle. It appears that this facility is in compliance with all requirements of the applicable permit. This report in conjunction with the MAERS emission reporting will conclude the Full Compliance Evaluation and will be marked as "Compliance".

NAME

DATE

SUPERVISOR



8/31/16

